ZytoDot® 2C SPEC FUS Break Apart Probe

RUO

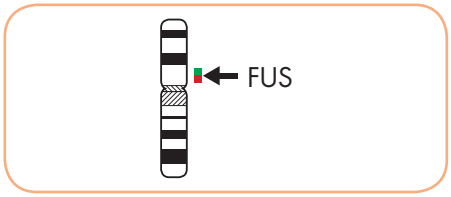
Background

The ZytoDot® 2C SPEC FUS Break Apart Probe (PD34) is intended to be used for the qualitative detection of translocations involving the human FUS gene at 16p11.2 in formalin-fixed, paraffin-embedded specimens by chromogenic *in situ* hybridization (CISH). The probe is intended to be used in combination with the ZytoDot® 2C CISH Implementation Kit (Prod. No. C-3044-10/-40).

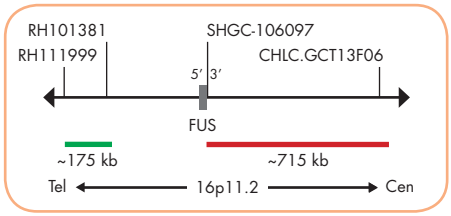
Probe Description

The ZytoDot® 2C SPEC FUS Break Apart Probe is composed of:

- Digoxigenin-labeled polynucleotides (~0.50 ng/µl), which target sequences mapping in 16p11.2** (chr16:30,663,949-30,840,569) distal to the FUS breakpoint region.
- Dinitrophenyl-labeled polynucleotides (~0.75 ng/µl), which target sequences mapping in 16p11.2** (chr16:31,213,259-31,927,155) proximal to the FUS breakpoint region.
- Formamide based hybridization buffer



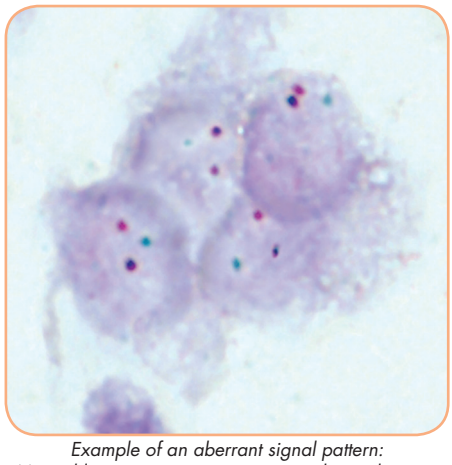
Ideogram of chromosome 16 indicating the hybridization locations.



SPEC FUS Probe map (not to scale).

Results

In an interphase nucleus lacking a translocation involving the 16p11.2 band, using the ZytoDot® 2C CISH Implementation Kit two red/green fusion signals are expected representing two normal (non-rearranged) 16p11.2 loci. A signal pattern consisting of one red/green fusion signal, one red signal, and a separate green signal indicates one normal 16p11.2 locus and one 16p11.2 locus affected by a 16p11.2 translocation.



Example of an aberrant signal pattern: Myxoid liposarcoma tissue section with translocation affecting the 16p11.2 locus as indicated by one non-rearranged red/green fusion signal, one red signal, and one separate green signal.

Prod. No.	Product	Label	Tests* (Volume)
C-3054-100	ZytoDot 2C SPEC FUS Break Apart Probe RUO	DIG/DNP	10 (100 µl)

** Using 10 µl probe solution per test. **According to Human Genome Assembly GRCh37/hg19*

RUO *For Research Use Only. Not for use in diagnostic procedures.*